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POSZ LAW GROUP, PLC
12040 SOUTH LAKES DR.
SUITE 101
RESTON, VA 20191

EXAMINER

PEREZ, JULIO R

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/936,484	Applicant(s) ARAKAWA ET AL.	
	Examiner Julio R. Perez	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 16, 18-23, 25-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 18-23, 25-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claim Objections

2. Claim 15 is objected to because of the following informalities: On line 4, it is unclear whether “a communication device” is the same as the “communication device” as recited on line 1 or a second different “communication device”; on line 9, it is unclear whether the “said communication device” is the same as the “communication device” as recited on line 1 or the “communication device” as recited on line 4; on lines 7 and 10, the terminology “are provided” and “is provided”, respectively, is not grammatically correct; on line 8, it is unclear whether “an electrical connection” refers to same “electrical connection” as recited on line 5 or to a different “electrical connection”; and on line 12, “and” should be added before “communication processing being performed”. Appropriate correction is required.

3. Claim 16 is objected to because of the following informalities: on line 4, it is unclear whether “a communication device” is the same as the “communication device” as recited on line 1 or a second different “communication device”; on line 9, it is unclear whether the “said communication device” is the same as the “communication device” as recited on line 4 or the “communication device” as recited on line 1; on lines 7 and 10, the terminology “are provided” and “is

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provided", respectively, is not grammatically correct. Appropriate correction is required.

4. Claim 18 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 10, add "the" before "construction machine"; on line 14, the terminology "being provided", is not grammatically correct. Appropriate correction is required.

5. Claim 19 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 10, add "the" before "construction machine"; on line 14, the terminology "being provided", is not grammatically correct. Appropriate correction is required.

6. Claim 20 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 8, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or the "construction machine" as recited on line 2 or a different "construction machine"; on line 8, add "the" before "construction machine"; on line 14, the terminology "being provided", is not grammatically correct. Appropriate correction is required.

7. Claim 20 is objected to because of the following informalities: on line 13, it is unclear what "moves outside or inside a predetermined area". Appropriate correction is required.

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8. Claim 21 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 10, add "the" before "construction machine information". Appropriate correction is required.

9. Claim 22 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 8, add "the" after "via a"; and add "the" before "construction machine information" respectively. Appropriate correction is required.

10. Claim 23 is objected to because of the following informalities: on line 2, it is unclear whether "a construction machine" is the same as the "construction machine" as recited on line 1 or a second different "construction machine"; on line 8, add "the" after "via a"; and add "the" before "construction machine information" respectively. Appropriate correction is required.

11. Claim 23 is objected to because of the following informalities: on lines 11-12, the terminology "is provided", is not grammatically correct. Appropriate correction is required.

12. Claim 23 is objected to because of the following informalities: on line 13, delete -- information -- after "location". Appropriate correction is required.

13. Claim 23 is objected to because of the following informalities: on line 15, delete -- a -- after "from". Appropriate correction is required.

14. Claim 25 is objected to because of the following informalities: on line 6,

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the terminology "are established" is not grammatically correct; on line 8, the terminology "is provided" is not grammatically correct; on line 11, substitute "this" with "said" after "that"; on line 12, substitute "this" with "said" after "entered"; on line 13, substitute "this" with "said" after "from"; on line 15, substitute "this" with "said" after "that" and after "exited" respectively; and on line 16, substitute "this" with "said" after "from". Appropriate correction is required.

15. Claim 26 is objected to because of the following informalities: on line 1, substitute "the" with "a" after "device". Appropriate correction is required.

16. Claim 27 is objected to because of the following informalities: on lines 5 and 11, the terminology "is provided", is not grammatically correct; on lines 7 and 10, the terminology "are established", is not grammatically correct; on line 8, it is unclear whether "one or more operating areas" is the same as the "one or more operating areas" as recited on line 3 or second different "one or more operating areas"; on line 15, "said operational mobile unit is" should be "said operational mobile units are"; on line 16, "this" should be "said" and "unit" should be "units"; on line 19, "said operational mobile unit enters" should be "said operational mobile units enter"; on line 20, "this" should be "said" after "that", "operational mobile unit has" should be "operational mobile units have", and "this" should be "said" after "entered"; on line 21, "this" should be "said" and "unit" should be "units"; on line 22, "unit" should "units"; on line 23, "this" should be "said" after "that" and "from" respectively, and "operational mobile unit" should be "operational mobile units"; on line 24, "this" should be "said"; on line 25, "mobile unit" should be "mobile units"; on line 32, "unit" should "units"; and on line 33,

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"unit" should be "units". Appropriate correction is required.

17. Claim 28 is objected to because of the following informalities: on lines 6 and 11, the terminology "is provided", is not grammatically correct; on line 10, the terminology "are established", is not grammatically correct; on line 15, "said operational mobile unit is" should be "said operational mobile units are"; "said operational mobile unit enters" should be "said operational mobile units enter"; on line 17, "this operational mobile unit" should be "said operational mobile units" and "this area" should be "said area"; on line 18, "this operational mobile unit" should be "said operational mobile units" and "this operational mobile unit exits" should be "said operational mobile units exit"; on line 20, "this operational mobile unit has" should be "said operational mobile units have"; on line 21, "this operational mobile unit" should be "said operational mobile units"; on line 28, "said operational mobile unit" should be "said operational mobile units"; and on line 30, "operational mobile unit" should be "operational mobile units".

Appropriate correction is required.

18. Claim 30 is objected to because of the following informalities: on lines 6-7, the terminology "is provided", is not grammatically correct; on line 10, the terminology "is provided", is not grammatically correct; on line 12, "period" should be "predetermined period". Appropriate correction is required.

19. Claims 31-34, 36 are objected to because of the following informalities: on line 1, "at a construction machine" should be "of the construction machine".

Appropriate correction is required.

20. Claim 35 is objected to because of the following informalities: on line 1, "of

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a construction machine" should be "of the construction machine". Appropriate correction is required.

21. Claim 37 is objected to because of the following informalities: on line 3, "wherein" should be "which comprises:". Appropriate correction is required.

22. Claim 37 is objected to because of the following informalities: on lines 7-8, the terminology "are provided", is not grammatically correct; on line 11, the terminology "is provided", is not grammatically correct. Appropriate correction is required.

23. Claim 37 is objected to because of the following informalities: on line 2, "a construction machine" should be "the construction machine"; on line 8, on line, the terminology "are provided", is not grammatically correct; on line 11, construction machine information" should be "the construction machine information"; on line 13, "wherein:" should be "comprising:"; on lines 15,18, respectively, the terminology "is provided", is not grammatically correct. Appropriate correction is required.

Claim Rejections - 35 USC § 112

24. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

25. Claim 18 recites the limitation "the specified construction machine information" in line 16. There is insufficient antecedent basis for this limitation in the claim.

26. Claim 19 recites the limitation "said mobile unit " in line 13. There is

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insufficient antecedent basis for this limitation in the claim

27. Claim 19 recites the limitation "the specified construction machine information " in lines 16-17. There is insufficient antecedent basis for this limitation in the claim.

28. Claims 25 and 28 recite the limitation "the detection result " in lines 9 and 14, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

29. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

30. Claims 15 is rejected under 35 U.S.C. 102(e) as being anticipated by DeMay et al, US Patent Number 6,20,4772 (hereinafter DeMay).

Regarding claim15, DeMay discloses a communication device of a mobile machine for communicating between the mobile machine and a terminal device, which comprises: means for enabling communications with said terminal device when an electrical connection to a power source is ON, and location detecting means for detecting the location of said construction machine (col. 2, lines 22-49,

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62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56); and means for periodically turning ON and OFF the electrical connection between said power source and said communication device when the engine of said construction machine is stopped (col. 4, lines 64-67-col. 5, lines 1-6, 6-67; col. 6, lines 1-2, 50-65, a switch is provided to allow power to be turned on or off and provide energy to the transmission unit of the machine, in fact providing location information to the monitoring station; furthermore, the switching on or off is inherent as evidence by the fact that the machine power is capable of being started or shut down by key-switch. The machine communicator provides location information to the remote monitoring center); and communication processing being performed when the electrical connection is turned ON (col. 4, lines 64-67-col. 5, lines 1-6, 6-67; col. 6, lines 1-2, 50-65).

Regarding claim 16, DeMay discloses a communication device of a mobile machine for communicating between the mobile machine and a terminal device, which comprises: means for enabling communications with said terminal device when an electrical connection to a power source is ON (col. 4, lines 56-67-col. 5, lines 1-5, the key-switch state, i.e., the engine being on or off is detected), and travel speed computing means for computing a travel speed of said mobile machine (col. 5, lines 7-10, 43-45-col. 6, lines 50-65, the system is capable of providing information detecting changes on the speed (the machine is running, i.e., moving, thus, speed calculating means there exists in order for the machine to be able to stop; thus, these paragraphs read on the claimed "computing a travel speed of the construction machine"); means for periodically turning ON and

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OFF the electrical connection between said power source and said communication device when the engine of said construction machine (col. 4, lines 64-67-col. 5, lines 1-6, 6-67; col. 6, lines 1-2, 50-65, a switch is provided to allow power to be turned on or off and provide energy to the transmission unit of the machine, in fact providing location information to the monitoring station; furthermore, the switching on or off is inherent as evidence by the fact that the machine power is capable of being started or shut down by key-switch. The machine communicator provides location information to the remote monitoring center), and communication processing being performed when the electrical connection is turned ON (col. 4, lines 64-67-col. 5, lines 1-6, 6-67; col. 6, lines 1-2, 50-65).

Regarding claim 18, DeMay discloses a communication device of a mobile machine constituted such that the mobile machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, the construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, comprising: detecting means for detecting a fact that an engine of said construction machine has been started (col. 2, lines 62-67-col. 3, lines 1-3, 45-64; col. 4, lines 62-67-col. 5, lines 1-6, 66-67- col. 6, lines 1-2, 50-65, the

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machine transmission unit is able to transmit information about the location of the machine key-switch state is changed, thus when the engine is started or stopped), and when said detecting means detects that said engine is started within a predetermined time zone, the construction machine information is sent to said terminal device from said construction machine (col. 5, lines 59-67- col. 6, lines 1-2).

Regarding claim 19, DeMay discloses a communication device of a mobile machine constituted such that the mobile machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, the construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, which comprises: totaling means for totaling engine operating hours of said construction machine, and when a cumulative value of said engine operating hours totaled by said totaling means either reaches a specified value, or increases by a specified quantity, the construction machine information is sent to said terminal device from said construction machine (col. 6, lines 23-27, 50-67- col. 7, lines 1-9).

Regarding claim 20, DeMay discloses a communication device of a construction machine constituted such that the construction machine and a

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terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, which comprises: detecting means for detecting a location of said construction machine, and when the location detected by said detecting means detects that the construction machine moves outside a predetermined area or inside of a predetermined area, the construction machine information is sent to said terminal device from said construction machine (col. 6, lines 23-28, 50-67-col. 7, lines 1-9).

Regarding claim 21, DeMay discloses a communication device of a construction machine constituted such that the construction machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, the construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, which comprises:

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detecting means for detecting a relative location of said construction machine in relation to a set range being provided in said construction machine, and when the relative location of said construction machine in relation to the set range constitutes a specified relative location, the specified construction machine information is sent to said terminal device from said construction machine (col. 3, lines 45-67; col. 6, lines 23-28, 50-65).

Regarding claim 22, DeMay discloses a communication device of a construction machine constituted such that the construction machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, the construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, which comprises: detecting means for detecting a drop in voltage of a power source mounted to said construction machine is provided in said construction machine, and when the voltage of said power source detected by said detecting means drops below a specified value, the construction machine information is sent to said terminal device from said construction machine (col. 2, lines 63-67-col. 3, lines 1-3, col. 4, lines 61-67-col. 5, lines 1-10).

Regarding claim 23, DeMay discloses a communication device of a construction machine constituted such that the construction machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device of requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, the construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, which comprises: detecting means for detecting a location of said construction machine is provided in said construction machine, and the location of said construction machine is sent to said terminal device from said construction machine when a content of construction machine-related data to be sent this time differs from content of construction machine-related data sent at a previous time (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 25, DeMay discloses a communication device of a construction machine for communicating between a plurality of construction machines and a terminal device, which comprises: means for establishing one or more business offices at/from which said plurality of construction machines are stored/dispatched, and one or more work sites at which said plurality of construction machines are operated (col. 3, lines 45-67; col. 4, lines 62-67; col. 6, lines 23-28); location detecting means for detecting a location of said

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construction machine (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); based on said location detecting means and location data for said business office and work site, when said construction machine enters said business office or work site, data stating that said construction machine has entered said work site is sent to said terminal device from said construction machine (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9), and when said construction machine exits from said work site, data stating that said construction machine has exited said work site is sent to said terminal device from said construction machine (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); and, based on said sent data, data on the entry/exit of said plurality of construction machines from work site is managed by said terminal device (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 26, DeMay discloses, wherein, when said construction machine exits from said work site, location data is sent to said terminal device from said construction machine each time said construction machine moves a predetermined distance, and, based on said sent location data, data on a movement history of said construction machine is managed by said terminal device (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 27, DeMay discloses a communication device of a mobile units for communicating between a terminal device and a plurality of operational

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mobile units for operating at one or more operating areas, which comprises:
means for transporting said plurality of operational mobile units with a
transportation mobile unit (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5;
col. 6, lines 23-28-50-67-col. 7, lines 1-9); one or more storage and dispatch
areas, at/from which said plurality of operational mobile units are
stored/dispatched, are established, and, in addition, the one or more operating
areas, where said plurality of operational mobile units are operated (col. 3, lines
45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-
9); means for detecting locations of said plurality of operational mobile units (col.
3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7,
lines 1-9); based on the detection results of said location detecting means and
location data of said one or more operating areas, data as to whether or not said
operational mobile units are at said operating area is sent to said terminal device
from said mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col.
6, lines 23-28-50-67-col. 7, lines 1-9); based on the detection results of said
location detecting means and location data of said one or more storage and
dispatch areas, when said operational mobile units enter said storage and
dispatch area, data to the effect that said operational mobile units have entered
said storage and dispatch area is sent to said terminal device from said
operational mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5;
col. 6, lines 23-28-50-67-col. 7, lines 1-9); when said mobile units exits from said
storage and dispatch area, data to the effect that said mobile units exited from
said storage and dispatch area is sent to said terminal device from said

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operational mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); based on said sent data, data as to whether said plurality of operational mobile units are either being stored at or have been dispatched from said one or more storage and dispatch areas, and data as to whether or not said plurality of operational mobile units are at said one or more operating areas are managed by said terminal device (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); and based on said managed data, said terminal device issues instructions to said transportation mobile unit to transport said mobile units from said operating area to said storage and dispatch area, or to transport said operational mobile units from said storage and dispatch area to said operating area (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 28, DeMay discloses a communication device of a mobile unit for communicating between a terminal device and a plurality of operational mobile units for operating within one or more operating areas, which comprises: means for transporting said plurality of operational mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); establishing one or more storage and dispatch areas, at/from which said plurality of operational mobile units are stored/dispatched, and one or more operating areas, where said plurality of operational mobile units are operated, are established (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); means for detecting locations of said plurality of operational mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5;

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col. 6, lines 23-28-50-67-col. 7, lines 1-9); based on said location detecting means, location data of said one or more storage and dispatch areas, and location data of said one or more operating areas, when said operational mobile units enter either said storage and dispatch area, or said operating area, data to the effect that said operational mobile units entered said area is sent to said terminal device from said operational mobile units, and when said operational mobile units exit from either said storage and dispatch area, or said operating area, data to the effect that said operational mobile units have exited from said area is sent to said terminal device from said operational mobile units (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); based on said sent data, data as to whether said plurality of operational mobile units are either being stored at or have been dispatched from said one or plurality of storage and dispatch areas, and data as to whether or not said plurality of operational mobile units are at said either one or plurality of operating areas are managed by said terminal device (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); and based on said managed data, said terminal device issues instructions to said transportation mobile unit to either transport said operational mobile units from said operating area to said storage and dispatch area, or to transport said operational mobile units from said storage and dispatch area to said operating area (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 30, DeMay discloses a communication device of a construction machine for communicating between a plurality of construction machines and a terminal device, which comprises: means for enabling communications with said terminal device when an electrical connection to a power source is turned ON (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56), means for periodically turning ON and OFF at a predetermined period the electrical connection between said power source and said communication device when an engine of its own construction machine is stopped (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56), and each of said plurality of construction machines changes said period in accordance with change data sent to said construction machine from said terminal device (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 31, DeMay discloses the communication device of the construction machine, wherein a period of time during which said means for periodically turning ON and OFF is turned ON is a minimum time necessary for performing a communication processing (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 32, DeMay discloses the communication device at a construction machine according to Claim 15, wherein a time in which said means for periodically turning ON and OFF is turned OFF becomes shorter as the location of said construction machine detected by said location means strays

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from a specific area or approaches a specific area (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 33, DeMay discloses the communication device at a construction machine, wherein a period for said turning ON and OFF is set arbitrarily (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 34, DeMay discloses the communication device of the construction machine, wherein a period of time during which said means for periodically turning ON and OFF is turned ON is a minimum time necessary for performing a communication processing (col. 3, lines 45-64, col. 4, lines 61-67- col. 5, lines 1-5; col. 6, lines 23-28-50-67- col. 7, lines 1-9).

Regarding claim 35, DeMay discloses the communication device of the construction machine, further comprising location detecting means, wherein a time in which said means for periodically turning ON and OFF is turned OFF becomes shorter as a travel speed detected by the location detecting means becomes faster (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 36, DeMay discloses the communication device of the construction machine, wherein a period for said turning ON and OFF is set arbitrarily (col. 2, lines 22-49, 62-67; col. 3, lines 1-3; col. 4, lines 64-67- col. 5, lines 1-10; col. 6, lines 50-56).

Regarding claim 37, DeMay discloses a communication device of a construction machine for communicating between the construction machine and

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a terminal device, which comprises: enabling communications with said terminal device when an electrical connection to a power source is ON, location detecting means for detecting the location of said construction machine, and state detecting means for detecting a state of said construction machine (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9); and means for periodically turning ON and OFF an electrical connection between said power source and said communication device when the engine of said construction machine is stopped, (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9), and means for processing communication or detecting the state of the construction machine being performed when the electrical connection is turned ON (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Regarding claim 38, DeMay discloses a communication device of a construction machine constituted such that the construction machine and a terminal device are connected by communication means enabling mutual transmission and reception, and, in accordance with an input operation performed at said terminal device requesting construction machine information related to the construction machine, a content of a request is sent to the construction machine, and the construction machine, which receives the request content, acquires, via the construction machine, construction machine information corresponding to the request content and sends the acquired construction machine information to said terminal device, comprising: detecting means for detecting a drop in voltage of a power source mounted to said

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construction machine (col. 2, lines 63-67-col. 3, lines 1-3, col. 4, lines 61-67-col. 5, lines 1-10); and means for periodically turning ON and OFF an electrical connection between said power source and said communication device when the engine of said construction machine is stopped, and when the voltage of said power source detected by said detecting means drops below a specified value, a time in which said means for periodically turning ON and OFF is turned OFF becomes longer (col. 3, lines 45-64, col. 4, lines 61-67-col. 5, lines 1-5; col. 6, lines 23-28-50-67-col. 7, lines 1-9).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R. Perez whose telephone number is (571) 272-7846. The examiner can normally be reached on 10:30 - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272- 4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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5/15/06

Julio R Perez
Examiner
Art Unit 2617


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